

ON NEW AND INSUFFICIENTLY KNOWN INDO-AUSTRALIAN  
*GEOMETRIDAE*.

By LOUIS B. PROUT, F.E.S.

SUBFAM. OENOCHROMINAE.

1. *Celerena angustisignata* spec. nov.

♀, 60–62 mm. Head yellow. Terminal joint of palpus rather short, black. Thorax and abdomen concolorous with wings, front of thorax more orange.

*Forewing* deep chrome or cadmium yellow; proximal third of costal margin slate-grey, black at extreme base and very narrowly along costal edge; a narrow slate-grey, distally black-edged band arising at the end of this grey shading, running at first in the direction of tornus or hinder end of termen, but curving very slightly in the end of the cell, interrupted at the fold 6 or 7 mm. from termen, reappearing merely as some feeble grey shading at and behind SM<sup>2</sup>; distal border slate-grey, narrowly edged proximally (except at extreme posterior end) with black; 8 or 9 mm. wide at costa, narrowing rapidly to R<sup>1</sup> (where it is about 3 mm. wide), then more gradually (scarcely 1 mm. at tornus). —*Hindwing* with the slate-grey border quite narrow throughout, its black proximal edging thick anteriorly, tapering posteriorly.

Underside with the markings mainly black; apex of forewing and fringes greyer; proximal band of forewing broadened and rather diffuse.

Sudest Island, January–February 1916 (type) and March 1916, Mount Riu, 2,000 feet (paratype); both in coll. Tring Museum, collected by Eichhorn brothers.

Perhaps a local form of *prodroma* Meyr. or *proboia* Prout (Nov. Zool. xxiii. 5). In any case it will require a name.

SUBFAM. HEMITHEINAE.

2. *Hypodoxa emiliaria subleprosa* subsp. nov.

♂, 42–44 mm.; ♀, 44–48 mm. Markings of name-typical *emiliaria* Guen., except that the antemedian line makes a rather stronger outward projection in the cell; coloration of upperside in both sexes closely like that of *leprosa leprosa* Warr., the distal area in the ♀ participating in some measure in the heavy dark markings of *fulgurea* Prout (which I now regard as another subspecies of *emiliaria*).

Underside nearly as in *e. emiliaria*, the ♀ (but not the ♂) with a black discal dot or small dot developed on the hindwing.

Mount Rossel, Rossel Island, November–December 1915 (W. F. Eichhorn), 2 ♂♂, 4 ♀♀, in coll. Tring Museum.

3. *Dysphania endoleuca* spec. nov.

♀, 84–92 mm. Face cadmium yellow at sides, blackish down the middle. Palpus blackish, first and second joints cadmium yellow beneath. Thorax in front

cadmium yellow with a few dark markings, pectus mostly yellow; thorax above mostly concolorous with forewing, a narrow yellowish transverse band behind middle. Abdomen above purple-brown with whitish belts, on the last few segments cadmium yellow; beneath belted, cadmium yellow and blackish.

*Forewing* with costal margin very slightly curved, at least in distal part; blackish purple, with the markings white; an oblique band from base of hindmargin nearly to the origin of  $M^2$ , mostly bounded anteriorly by  $M$ ; a somewhat oblique transverse median band, nearly as in *cyane* Cram., but rather more regular; the postdiscal spots between the radials small and well separated, the subapical series nearly as in *cyane*, the mark between  $M^2$  and tornus small, sinuous and vague, especially in its posterior part.—*Hindwing* similar to that of *cyane*, the dark subbasal area rather more oblique, connected with the dark border by some shading in front of  $SC$ , the cell-mark smaller, the projection of the white median area behind it rather more shallow, the submarginal zigzag band lighter and brighter (cadmium yellow), with the outward teeth less acute and with a single, rather broad projection to termen along submedian fold, whereas *cyane* shows two slender projections or dashes (on  $M^2$  and fold).

Underside similar, the hindwing with subbasal band only connected with the dark border in front of  $C$ , the yellow submarginal band broadened.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December, 1910 (A. S. Meek), 2 ♀♀ in coll. Tring Museum.

Rather recalls some ♀ forms of *tyrianthina* Butl., in which, however, *interalia*, the white median area of the hindwing is interrupted by the ground-colour at abdominal margin and the venter is not yellow-belted. I conjecture that *endoleuca* may be the *cyane* of Oberthür's "Lep. Dorei" (*Ann. Mus. Genova*, xii. 469, indescr.) and possibly of Pagenstecher's "Lep. Aru-Inseln" (*Jahrb. Nass. Ver. Nat.* xxxix. 162, indescr.); I have only seen true *cyane* Cram. from Ceram, Gisser Island, Amboina, and Saparoea, and would provisionally alter the given range (*Lep. Cat.* pt. 14, p. 26) accordingly.

#### 4. *Dysphania militaris abnegata* subsp. nov.

Paler yellow than *m. militaris* L., abdomen without dark belts.

*Forewing* with the oblique antemedian black streak between  $SM^2$  and hindmargin almost invariably reduced to a very fine and slight dash, very often entirely obsolete.—*Hindwing* with basal band usually slender or obsolete; very generally with postmedian band more slender than in *m. militaris*, often more or less interrupted.

Hainan, type (Weng Chang, July 1902) in coll. Tring Museum.

Out of a series of nearly 60 examined, from various localities on the island, only three show the hindmarginal black streak of forewing in at all good development, and these remain distinguishable by the pale ground-colour. In the very few aberrations of *M. militaris* in which the corresponding mark is reduced, the rest of the antemedian band participates in the reduction, which is rarely the case in *m. abnegata*.

#### 5. *Dysphania latiplaga* ab. *chrysostathes* ab. nov.

All the normally white parts of forewing concolorous with the normally yellow parts of hindwing.

Kolawi, Central Celebes, June, August, October, and November, 1912 (Dr. Martin). 7 ♂♂ in coll. Tring Museum, together with 5 which agree with the normal South Celebes form of *latiplaga* Warr.; Palos Bay, Celebes, 1 ♂ in coll. Joicey.

#### 6. *Ornithospila succincta* spec. nov.

♂ ♀, 38-40 mm. Very similar to *cincta* Walk. ♂ antenna with similar (rather short) pectinations, which, however, are continued a little farther distally. Palpus on outer side sometimes with some weak green admixture; in ♀ shorter than in *cincta* ♀.

*Forewing* of the same green as in *cincta*; costal edge more narrowly darkened and with some whitish admixture; dark yellow-green lines and cell-mark as in *cincta*; distal border redder, narrower, scarcely more than a line, which thickens slightly between the veins; fringe distally and at vein-ends whitish.—*Hindwing* on an average more elongate towards tornus than in *cincta*; termen as on forewing; fringe narrowly white proximally between the veins from  $SC^2$  to  $SM^2$ .

Government Hill, Penang, 1,000 ft., May 19-24, 1898 (Curtis), type and others in coll. Tring Museum. Also in coll. British Museum from Penang, 2,260 ft., March 22, 1898, 1 ♂ (S. S. Flower), Sandakan, N.E. Borneo, 1 ♂ (W. B. Pryer), and Sarawak, 1 ♀.

#### 7. *Gelasma auspicata* spec. nov.

♂. 32 mm. Face and palpus dark red, the latter strongly mixed with black, its underside whitish. Vertex and antennal shaft whitish ochreous; antenna pectinate to the 30th joint. Occiput and upperside of thorax green; thorax beneath and most of abdomen whitish ochreous.

*Forewing* with apex rather acute, termen nearly straight, but not quite so straight as in *veninotata* Warr.; opaque grey-green, very slightly greyer at the position of the blotch of underside; costal edge ochreous, irregularly dotted with dark purple-red; lines very fine, lunulate-dentate, whitish, with clearer white dots on some of the veins; antemedian from about one-fourth costa to one-third hindmargin, in the type very indistinct; postmedian at just beyond two-thirds, with deeper lunule inward between  $M^2$  and  $SM^2$ ; a small and faint dark-green cell-dot; terminal line dark purple-red, interrupted by small pale ochreous dots at the veins; fringe pale ochreous, with conspicuous dark-red spots opposite the veins and with a slight reddish darkening distally.—*Hindwing* quadrate (section *Thalerura*), but with the tail at  $R^3$  shorter than in *veninotata*; as forewing except in the unmarked costa and lack of first line and in the elongation of the discal mark.

Underside paler, especially the hindwing and posterior part of forewing; forewing with the ochreous costal edge unspotted, terminal line slightly thickened, a purple-fuscous terminal blotch of about 2 mm. width from tornus about to  $R^3$  and some slight strigulae anteriorly; hindwing with corresponding blotch from apex about to  $R^2$  and some strigulae posteriorly.

Khasis. Type in coll. Tring Museum; paratype in coll. L. B. Prout.

Differs from *veninotata* in shape, in the red terminal line and the more strongly spotted fringes.

8. *Thalassodes furvifimbria* spec. nov.

♂, 37 mm.; ♀, 39–41 mm. Face green. Palpus elongate (in ♂ almost, in ♀ more than, twice as long as diameter of eye; third joint in ♂ as long as, in ♀ longer than, second joint), green, beneath white. Vertex green, only very narrowly white in front. Hindtibia in ♂ not dilated. Abdomen without dorsal ornamentation.

*Forewing* shaped, coloured, and marked as in the typical group, the white lines straight; **fringe**, except at extreme base, **dark grey**.—*Hindwing* with the angle at R<sup>1</sup> moderate or rather slight; postmedian line slight; fringe as on forewing.

Ceylon: Pundaloya. December (type ♂), July and undated (2 ♀♀), in coll. Tring Museum; a ♂ without date and a ♀ April, in coll. British Museum, ex coll. E. E. Green.

Easily distinguished by the dark fringes and the ♂ structure; both the other green-faced Indian species in which the ♂ hindtibia is undilated (*aucta* Prout and *falsaria* Prout) have shorter palpus and yellow fringes. The ♂ type has unfortunately lost the fringes, but is chosen for the structural characters.

9. *Prasinocyma fragilis solida* subsp. nov.

Deeper green than *f. fragilis* Warr., the white lines fainter, the white spots distally to the discocellulars almost or altogether obsolete.

Rossel Island: Mount Rossel, 2,100 ft., November—December 1915 (W. F. Eichhorn). Type in coll. Tring Museum.

10. *Metallochloa exorista* spec. nov.

♂, 32 mm. Closely similar to *meeki* Warr. and its subspecies *tenuilinea* Warr., differing as follows:

Antennal teeth shorter.—*Forewing* with costal margin more markedly arched posteriorly, distal margin slightly more oblique; costal margin more broadly and brightly red, at extreme edge heavily mixed with black; a distinct, though minute, black cell-dot present; minute black dashes on SC<sup>5</sup> and sometimes on R<sup>1</sup> distally to the median silvery streak and proximally to the subterminal; terminal dots somewhat enlarged towards apex.—*Hindwing* more produced in middle of distal margin, the submarginal silvery line in consequence more acutely bent.—Underside without the apical blotch of hindwing or distal grey band.

Upper Aroa River, British New Guinea, March 1903 (A. S. Meek). Type in coll. Tring Museum.

11. *Metallochloa militaris satisfacta* subsp. nov.

*Forewing* with the yellow costal edge somewhat widened, rather strongly dark-dotted. Both wings with the red cell-dot larger, almost as in *sanguinipuncta* Warr., the submarginal dots enlarged into dashes, placed rather farther from the termen, the yellow border consequently somewhat widened. *Hindwing*, as well as *forewing*, beneath with a fuscous apical dot.

Goodenough Island, 2,500–4,000 ft, April and May 1913 (A. S. Meek). 4 ♀♀



in coll. Tring Museum, including type. Also a slightly worn ♀ from Milne Bay, British New Guinea, December 1898.

*M. sanguinipuncta* Warr., from the Key Islands, is very likely also a subspecies of *militaris*, with the submarginal dots placed as in *m. satisfacta*, but red and not enlarged, the space between them and the termen remaining green; but it further differs in showing pairs of vague wavy lines in place of the vague blotches. Only Warren's two originals (his type ♀ and a small worn ♀ unaccountably registered. NOV. ZOOLOG. v. 422, as *militaris*) are yet known to me.

#### 12. *Episothalma sequestrata* spec. nov.

♂ ♀, 38-42 mm. Very similar to *obscurata* Warr. ♀ with third joint of palpus considerably shorter than second (in *obscurata* longer than second), the abdomen more robust, with erests vestigial.

*Forewing* in both sexes with termen less strongly sinuous, more feebly crenulate; lighter grey-green (perhaps sage-green when freshly bred); markings of upperside similar, but with the antemedian line more deeply bent outward in cell, reaching the discocellulars, both lines less strongly marked with white on their reverse sides, distal dark shading weaker, confined to posterior half of wing.—*Hindwing* with termen less crenulate than in *obscurata*; subterminal dark shading narrower, sometimes interrupted.—*Forewing* beneath with the dark distal cloud restricted, at termen reaching from tornus scarcely to M<sup>2</sup>, in a width of less than 2 mm., between M<sup>2</sup> and M<sup>1</sup> still narrower, subterminal, anteriorly obsolete. *Hindwing* beneath with the subterminal dark band much narrowed, especially in posterior part, touching termen at apex and tornus only, between radial fold and M<sup>2</sup> weak or almost interrupted.

Milne Bay, British New Guinea, November—December 1898 (A. S. Meek). Type ♂, December, in coll. Tring Museum. Also 1 ♀ from Goodenough Island, December 1896.

Mr. Meek took *E. obscurata* at the same place in December 1898 (1 ♀) and January—February 1899 (3 ♂♂, 1 ♀); on account of the great difference in the ♀ palpus there can be no question as to their specific distinctness.

#### 13. *Hemithea subflavida copiosa* subsp. nov.

♀. Wings rather broader than in *s. reducta* Warr. (Dutch New Guinea), approaching the shape of the preceding species. Underside with the dark borders rather broader than in *s. reducta* and in addition with the postmedian line (or shade) present, on the forewing partly fuscous, on the hindwing olivaceous.

Bougainville, Solomon Islands, April 1904 (A. S. Meek), 2 ♀♀ in coll. Tring Museum.

The known forms of *H. subflavida* now furnish regular transitions in shape, through *Episothalma sequestrata* to *E. obscurata*, and suggest that the genus *Episothalma* will have to be merged in *Hemithea*. In any case the three species named, together with *E. subaurata* Warr., form a very natural group.

#### 14. *Hemithea insularia duplicata* subsp. nov.

Darker and greyer green than *i. insularia* Guen. (*Spec. Gén. Léop.* ix. 385; Oberth. *Et. Léop.* xii. t. 390. f. 3297), the blotches beneath highly developed,

showing through as slight green shadows on the upperside; an additional narrow dark patch more or less developed on the hindwing beneath, between the tornus and  $M^2$ .

Fergusson Island, October—December 1894 (A. S. Meek), type ♂ and 2 ♀♀; Milne Bay, British New Guinea, December 1898—February 1899 (A. S. Meek), ♂, 2 ♀♀; Kumusi River, N.E. British New Guinea, low elevation, August 1907 (A. S. Meek), 2 ♀♀. All in coll. Tring Museum.

The abdominal crests look better developed than in *i. insularia*, of which, however, little first-rate material is accessible to me.

#### 15. *Hemithea wuka isabella* subsp. nov.

♀. *Forewing* slightly broader still than in *w. wuka* Pagenst.; postmedian line rather more excurved; some greyish shading in distal area, indicating faintly the position of the blotch beneath; terminal dots and fringe yellower.—*Hindwing* with similar distinctions, the outward projection of the postmedian line still more pronounced.—*Forewing* beneath with subterminal blotch or half-band from tornus almost to  $R^3$  and very faint shadow-band anteriorly. *Hindwing* beneath with the usual apical blotch long and strong, a tornal blotch nearly as on forewing.

Isabel Island, Solomons, June 4—July 9, 1901 (A. S. Meek), type in coll. Tring Museum.

Possibly a separate species.

#### 16. *Diplodesma planata* spec. nov.

♂, 22–23 mm.; ♀, 24–27 mm. Head dull green, between the antennae narrowly white. Palpus in ♀ with third joint longer than in the *ussuriaria* group. Thorax above green. Abdomen paler.

*Forewing* with termen nearly straight, a little more oblique than in most of the species; venation in ♂ as in typical *Diplodesma*, in ♀ with  $SC^2$  not or scarcely touching C, yet approaching much more closely than in the *ussuriaria* group; dull green; costal edge very narrowly ochreous, with fine blackish dots; lines white, very fine; antemedian indistinct or obsolescent, slightly excurved in cell and incurved about M; postmedian at nearly two-thirds, very gently curved anteriorly, then almost straight or with an exceedingly slight inward curve in its posterior half; cell-dot not or scarcely discernible; no terminal line; fringe unmarked.—*Hindwing* shaped about as in *subexpressa* Walk. and *contracta* Warr., the abdominal margin being considerably elongate, the tail at  $R^3$  well developed; antemedian line wanting, postmedian slightly or scarcely sinuous, very feebly bent at  $R^3$ .

Underside whitish green, unmarked, the hindwing slightly whiter than the forewing.

N.W. India: Simla, type ♂ (labelled by Warren *celataria* ab. *plana*, but not published); Subathu, June—August 1889, both sexes; Kulu district, a pair. All in coll. Tring Museum.

#### 17. *Diplodesma planata dorsinigrata* subsp. nov.

Differs from the name-typical form, as described above, in having the costal edge of the forewing more strongly dotted with black, the discal mark of

both wings more noticeably darkened, and especially in having a conspicuous black patch on the third and fourth abdominal tergites.

Khasis. 3 ♂♂, in coll. Tring Museum.

### 18. *Diplodesma mystica* spec. nov.

♀, 27 mm. Face deep red, narrowly white below. Palpus twice as long as diameter of eye, third joint as long as second; red above, white beneath. Vertex white. Thorax and abdomen pale greenish above, whitish beneath. Hindtibia without median spurs.

*Forewing* with termen gently curved;  $SC^1$  from near end of cell,  $SC^2$  arising after  $SC^5$ ,  $R^1$  stalked,  $M^1$  connate; pale olive-yellow (probably faded); costal edge white; a fine, not very conspicuous white line from three-fifths hind-margin, nearly parallel with termen about to  $R^1$  or  $R^2$ , then curving slightly away from it, but becoming obsolescent; no terminal line; fringe whitish.—*Hindwing* with abdominal margin fairly long, termen full, very feebly bent at  $R^3$  and inappreciably at  $R^1$ ; C approximated to SC for a short distance near base,  $M^1$  stalked; as forewing, the line about central, complete, very gently curved.

Underside whitish, unmarked.

South Celebes, August–September 1891 (W. Doherty). Type in coll. Tring Museum.

Will not fit into any known genus, but in the absence of the ♂ I place it in *Diplodesma*, Sect. IV. (*Gen. Ins.* fasc. 129, p. 185), into which—assuming that the ♂ frenulum is present—it would fall by my Key (*loc. cit.* p. 13).  $SC^1$  of forewing, C of hindwing, and the shape are, however, against this location.

### 19. *Hemistola malachitaria* spec. nov.

♂, 27 mm. Face blackish on upper half; whitish ochreous on lower. Palpus slender, not reaching beyond frons; whitish ochreous, with some blackish irroration on outer side. Vertex narrowly whitish; occiput green. Antennal shaft whitish ochreous; pectinations slender, not long, rather widely separated, becoming very short towards the 20th joint. Thorax and abdomen green. Hindtibia not dilated.

*Forewing* with DC not very deeply curved,  $SC^1$  from near base of stalk of  $SC^{2-6}$ , anastomosing moderately with C,  $R^1$  barely stalked; light green, almost as in *chrysoprasaria* Esp., only a shade more bluish; antemedian line scarcely indicated; postmedian whitish, quite indistinct, especially anteriorly, apparently not crenulate, perhaps slightly more oblique than in *chrysoprasaria*; no terminal line.—*Hindwing* with termen rounded; postmedian line curved almost as strongly as in *dispartita* Walk.

Underside scarcely paler; unmarked.

Kukli, N.W. India, August 1891. Type in coll. Tring Museum.

In spite of the colour and the shorter antennal pectinations, this is probably nearer to *dispartita* than to *chrysoprasaria*, and I expect the ♀ will prove to have non-pectinate antenna.

20. *Hemistola antigone* spec. nov.

♂, 34 mm. ; ♀, 36 mm. Face deep red. Palpus in ♂ not reaching beyond frons, in ♀ with third joint a little longer, reaching beyond frons ; deep red, beneath paler. Vertex pale green. Antenna in ♂ with short pectinations to about the 27th joint, the last few mere teeth, the longest of the inner series scarcely longer than, of the outer series scarcely three times as long as, the diameter of the shaft ; in ♀ not pectinate. Thorax above green (abdomen in both examples discoloured ; apparently with some red markings dorsally). Hindtibia in ♂ dilated, with hair-pencil.

*Forewing* with apex rather sharp, termen almost straight in the ♂, rather more bent in the middle in the ♀ ; SC<sup>1</sup> free, R<sup>1</sup> stalked or separate ; bluish green, a little duller than in *rubrimargo* Warr. ; costal edge very narrowly ochreous, with dark dots ; first line slightly indicated, apparently about as in *rubrimargo* ; cell-dot sharp, red mixed with black, with a slight pale circum-scription ; postmedian line indistinct except near hindmargin—where it forms a deep lunule inward—and as white dots on the veins, apparently formed nearly as in *rubrimargo*, but more distally placed ; neither line accompanied by any red dot ; terminal line red, mixed with black, slightly interrupted at the veins ; fringe proximally white between the veins, with longer or shorter reddish marks opposite the veins ; distally apparently reddish grey (somewhat damaged).—*Hindwing* narrower than in *rubrimargo* Warr. and *fuscimargo* Prout (Nov. Zool. xxiii. 16), abdominal margin long ; tail at R<sup>3</sup> rather strong ; C anastomosing slightly with SC near base, M<sup>1</sup> almost connate with R<sup>3</sup> ; as forewing, without antemedian line.

Underside whitish green, the discal dots slightly indicated ; costal edge of forewing light ochreous, more feebly dotted than above ; terminal line and fringe nearly as above.

Khasis, May 1896. ♂ type and a ♀ in coll. Tring Museum.

The pale-ringed discal dots, somewhat recalling *Cyclothea disjuncta* Walk., distinguish this from all other species of *Hemistola*.

21. *Iodis rhabdota* spec. nov.

♂ ♀, 33–35 mm. On an average larger than *iridescens* Warr. Palpus in ♂ with third joint a little shorter, antenna in ♂ pectinate to about one-half its length (in *iridescens* to about two-thirds), the branches not quite so long.—*Forewing* slightly broader, the termen less oblique ; SC<sup>1</sup> connate (in one example just from cell), free, R<sup>1</sup> stalked ; the white ground-colour rather less opalescent than in *iridescens*, more tinged with green ; costal margin less dark ; bands broader, the postmedian less oblique anteriorly, rather more dentate.—*Hindwing* with corresponding distinctions.

Khasis, February—March 1894. Type in coll. Tring Museum. Also a ♂ from Sikkim (Knyvett).

Intermediate in colour towards *coeruleata* Warr., which is still greener, has nearly the shape of the present species, but the antennal structure of *iridescens*, and is distinguished from both by the postmedian line of the forewing, which is rather deeply sinuate inward between the radials and moderately between M<sup>2</sup> and SM<sup>2</sup>.



22. *Iodis colpostrophia* spec. nov.

♂, 33 mm. Very similar to *coeruleata* Warr., possibly a local race of it. *Forewing* with apex less pointed, termen distinctly curved (in *coeruleata* straight);  $SC^1$  almost connate with  $SC^{2-5}$ , not anastomosing with C,  $R^1$  connate,  $M^1$  just separate; apparently rather deeper, and at the same time yellower, green than in *coeruleata* (but probably a little discoloured in relaxing); bands broader and still more ill-defined, except the second band distally, where it is edged by a rather sharply white postmedian line, which is even more deeply dentate than in *coeruleata*; similar dark-green shading about DC, suggesting a long-oval, pale-centred cell-mark (sometimes indicated in *coeruleata*).—*Hindwing* rather broad, with the tail rather short; the green antemedian band rather well developed except at costa, partly merged with a green line just outside  $DC^2$ , so as to enclose a roundish pale cell-mark.

South Java, 1,500 m., 1891 (H. Fruhstorfer). Type in coll. Tring Museum.

A ♀ from Rukit. Putus, Selangore, 3,000 ft., May 1896 (Curtis), is rather larger; palpus at least twice as long as diameter of eye, with long third joint;  $R^1$  shortly stalked. I know no authentic ♀ of *coeruleata*, but in a worn specimen from Digboi, Assam, which I have provisionally determined as such, the palpus is not more than one-and-three-quarter times the diameter of eye.

23. *Iodis xynia* spec. nov.

♂, 25–28 mm.; ♀, 32 mm. Face pale green. Palpus in ♂ fully half as long again as diameter of eye, with third joint shortish; in ♀ fully two-and-a-half times diameter of eye, with third joint fully as long as second; mixed with ferruginous above, white beneath. Antenna in ♂ pectinate to one-half, with longish branches. Vertex narrowly white; occiput green. Thorax green above, white beneath. Abdomen above green basally, otherwise whitish; beneath white. Hindtibia in ♂ with strong ensheathed hair-pencil; tarsus slightly over one-half as long as tibia.

Wings shaped as in *argutaria* Walk. or *iridescens* Warr.—*Forewing* with  $SC^1$  connate or occasionally stalked (in one Dharmasala ♂ just separate), anastomosing rather strongly with C and with  $SC^2$ ; opalescent white, the reflections in most lights pearl-blue; irroration fine, light olive-greenish; costal edge ochreous; the greenish shades which accompany the lines and cell-mark, as well as that at distal margin, diffuse and ill-defined; lines white; antemedian ill-defined at costa, less so posteriorly, placed at less than one-fourth the wing-length anteriorly, lunulate outward between the veins (but not deeply), reaching hindmargin at about one-third; postmedian more distinct, 2 or 3 mm. from termen, lunulate-dentate, not strongly incurved between the radials and posteriorly, as near termen at  $SM^2$  as at  $M^2$ ; termen with minute and inconspicuous white dots at veins.—*Hindwing* with first line weak or obsolescent; otherwise similar.

Underside opalescent white; forewing with costal half tinged with greenish, costal edge bright ochreous.

North India. Type, Khasis, March 1894, in coll. Tring Museum.

Represented in most collections, but hitherto apparently mixed with *argutaria* Walk., which is very different in the less long ♀ palpus, darker green colour, deeply sinuous and posteriorly thickened postmedian line and various other points.



24. *Berta poppaea* spec. nov.

♂ ♀, 23 mm. Shape and structure about as in *acte* Swinh. (hindlegs lost in the only ♂). Head and body olivaceous; vertex only very narrowly and inconspicuously white in front. Base of antenna white.

*Forewing* with costa arched, termen slightly curved;  $SC^1$  anastomosing strongly with C, well free from  $SC^2$ ; dull olivaceous, costal edge narrowly ochreous; antemedian line white, indistinct, indicated chiefly by two slender outward curves (in cell and between M and  $SM^2$ ); two white dots on discocellulars, that on  $DC^2$  the larger, somewhat elongate; a slender, zigzag white postmedian line, broken up into dots and small lunules, its position and general course about as in *Iodis annulifera* Warr., the lunule between  $M^2$  and  $SM^2$  rather thick; termen with white dots at ends of veins, the anterior ones small, the posterior elongate.—*Hindwing* similar, with the cell-dots almost or altogether obsolete.

Mount Wuchi, Hainan, May 1903. ♂ (type) and 2 ♀♀ in coll. Tring Museum.

No other Oriental *Berta* shows so little white marking. Structurally, this species, *acte*, and *annulifera* suggest transitions between this genus and *Iodis*.

25. *Berta subrectistriga* spec. nov.

♂, 25 mm. Structure about as in *acte* Swinh., third joint of palpus slightly longer in proportion. Face olivaceous. Palpus olivaceous above, white beneath. Vertex narrowly and rather irregularly white; occiput olivaceous. Thorax and abdomen above olivaceous, with large white spots, which decrease in size posteriorly; beneath mostly white. Legs olivaceous, on inner side white.

*Forewing* shaped nearly as in *acte* or with costal and distal margins still straighter; olivaceous; white markings proximally to the postmedian nearly as in *chrysolineata* Walk., the compound cell-mark broader, especially in its posterior half, less 8-shaped, in that its outer and inner sides do not touch in the middle; a white postmedian band, straightish on its outer edge (slightly more oblique than termen), throwing out broad and deep, fairly uniform, inter-neural teeth proximally; subterminal white line thin between  $SC^2$  and  $R^1$  and between  $R^2$  and  $R^3$ , otherwise rather thick, continuous except for exceedingly fine interruptions at and midway between the veins; termen and fringe about as in *chrysolineata*.—*Hindwing* with the excision between  $R^1$  and  $R^3$  almost as deep as in *chrysolineata*; white markings broad, especially a postdiscal band, which is only cut by slender olivaceous veins; postmedian line zigzag, continuous, fairly thick but nowhere thickened into round spots; subterminal, termen, and fringe nearly as on forewing.

Underside white, tinged with olivaceous in places.

Mount Dulangar, Mindoro, Philippines, 4,500–5,500 ft., November 1895—January 1896 (J. Whitehead). Type in coll. Tring Museum.

26. *Berta zygophyxia* Prout.

*Berta chrysolineata zygophyxia* Prout, *Gen. Ins.* fasc. 129. p. 234 (1912).

I think this must be a separate species, as it sometimes occurs together with *chrysolineata* Walk. I now know it from Penang, Perak, Singapore, Bali, British New Guinea, the Admiralty and the Solomon Islands, and it will certainly be detected in some intervening localities. By an oversight I neglected to state that the type is from Bali.

27. *Berta copiosa* spec. nov.

♂, 23 mm. Face pale olivaceous. Palpus with third joint shortish; olivaceous, beneath white. Vertex white. Occiput mixed with olivaceous. Antenna bipectinate to about the middle. Thorax and abdomen above olivaceous, with indistinct whitish spots; beneath more mixed with white. Hindtarsus less than half as long as tibia.

*Forewing* shaped as in *chrysolineata* Walk.; discocellulars characteristic; SC<sup>1</sup> from cell, anastomosing slightly with C, SC<sup>2</sup> arising after SC<sup>1</sup>, free; dull olivaceous, with some slight whitish irroration; markings sharply white; two spots between the veins near base; antemedian line thickened and lunulate outward in cell, still more deeply lunulate outward in submedian area, but proximally filled in with white so as to form a spot; a small spot in cell just proximal to DC and some vaguer spots behind it; an elongate costal mark from just proximally of DC to the anastomosis of SC<sup>1</sup> with C; partly confluent with this costal mark is an irregularly quadrate patch between the radials slightly beyond the cell; elongate interneural marks just beyond this, between costal margin and R<sup>1</sup>; postmedian line zigzag, thickened proximally into a double spot between the radials, interrupted at M<sup>1</sup>, reappearing rather more proximally as three large interneural spots between M<sup>1</sup> and hindmargin, the first the largest; subterminal line broken into spots, wanting between R<sup>2</sup> and R<sup>3</sup>, small posteriorly; termen and fringe as in *chrysolineata*.—*Hindwing* similar, but with a conspicuous spot on middle of abdominal margin in alignment with the radial, postdiscal patch, which is less quadrate (more transversely elongate) than on forewing.

Underside white, with slight olivaceous cell-marks (irregularly ocellated in their anterior part) and wavy olivaceous transverse lines, the postmedian thickened into an irregular, narrow band, the subterminal also distinct.

Naga Hills, Assam, 1,500–3,000 ft., September–October 1889 (W. Doherty). Type in coll. Tring Museum.

28. *Comostola hypotyphla* spec. nov.

♀, 25 mm. Face red. Palpus about two-and-a-half times, third joint almost as long as, diameter of eye. Vertex white; occiput green. ♀ antenna somewhat serrate. Thorax above green, abdomen mixed with whitish.

*Forewing* with SC<sup>1</sup> from cell, free, R<sup>1</sup> barely stalked, DC not extremely sinuous; light glaucous green, nearly as in *maculata* Moore; costal edge narrowly whitish, unspotted; antemedian dots on M and SM<sup>2</sup>; the dull red cell-dot small, not pale-centred, the whitish ring around it very slender; postmedian yellowish white, consisting of moderate dots on R<sup>1</sup> and R<sup>2</sup> nearly 4 mm. from termen, a curved line (confluent elongate dots) from R<sup>3</sup> to beyond M<sup>1</sup> slightly nearer to termen, a dot at M<sup>2</sup> slightly receding and a nearly vertical mark from fold to hindmargin nearly 4 mm. from tornus; some red scales sometimes noticeable at distal edge of these spots; terminal line white, accompanied proximally by some short and very slender dark reddish interneural dashes; fringe white, with a tinge of green.—*Hindwing* with termen bent at R<sup>3</sup>; cell-mark as on forewing; postmedian line chiefly marked by lunules on R<sup>1</sup> and R<sup>2</sup>-M<sup>1</sup> and a somewhat enlarged spot on middle of abdominal margin; terminal line and fringe as on forewing.

Underside whitish blue-green, unmarked; costal edge of forewing ochreous, slightly shaded with rufous basally, a still slighter rufous suffusion over a wide area proximally except towards hindmargin.

N. India: Dalhousie, May 1891. Type in coll. Tring Museum.

A pair from Dharmasala (= *nympha* Butl., *Ill. Het.* vii. 22, ex. err. det.) show the ♂ antennal pectinations to be long, hindtibia not much thickened. Differs from *maculata* Moore in its small size, more bent termen of hindwing, reduced ocelli, better developed and less deeply bent postmedian line, and especially in having the discocellulars of the forewing of more normal *Comostola* form; *albifimbria* Warr. and *maculata* Moore should, strictly speaking, be placed in *Comostolopsis*, making a transition towards *Comostola*.

### 29. *Comostola demeritaria* spec. nov.

♂ ♀, 18-21 mm. Face light reddish, becoming more ochreous below. Palpus in ♂ about one-and-a-half times diameter of eye, in ♀ about two-and-a-half times; light ochreous, strongly mixed with red except beneath. Vertex and antennal shaft very pale sulphur-yellow; ♂ pectinations four or five times diameter of shaft. Occiput green, separated from the yellow vertex by a slender red line. Thorax and abdomen green above, white beneath and at anal extremity. Hindtibia in ♂ dilated, but without terminal process.

*Forewing* with DC little bent at origin of  $R^2$ ,  $SC^1$  from cell or shortly stalked,  $R^1$  stalked or occasionally connate; light blue-green, almost as in *laesaria* Walk. or a shade bluer; costal edge pale yellow, with the dark speckling generally slight, no dark spots at origin of lines; lines represented by double spots, their approximated parts very pale yellow, their reverse parts red; the antemedian spots placed on  $SM^2$  at one-third and (smaller, sometimes obsolescent) on M; the postmedian on all the veins from  $R^1$  hindward, slightly excurved between  $R^2$  and  $SM^2$ , those on  $R^2-M^1$  confluent, that on  $SM^2$  confluent with a spot at about two-thirds hindmargin, the rest small, sometimes obsolescent; cell-spot moderate, roundish, rather duller than in *laesaria*; terminal line rather strong, interrupted at veins, red proximally, dark and metallic distally, in places separated from fringe by an exceedingly slender white line; fringe pale yellow, with an oblique dark mark at apex.—*Hindwing* rather long and narrow, termen bluntly bent at  $R^3$ ; antemedian line wanting, cell-spot rather larger, oftenest diamond-shaped, some light metallic scales in its middle.

Underside whitish blue-green, costal edge of forewing and all fringes yellowish; cell-spots feebly showing through.

Khasis, December to April. A series in coll. Tring Museum, the type dated March 1894. Also in other collections.

Not differentiated by Warren from *meritaria* Walk.; wings rather less broad, discocellulars much less characteristic, cell-spots less large, vertex and antenna less white.

### 30. *Comostola cedilla* spec. nov.

♂, 22 mm.; ♀, 25 mm. Face dull dark red, sometimes mixed with blackish; very narrowly white below. Palpus ochreous and reddish above, whitish beneath; second joint with some black irroration on outer side. Crown much mixed with red and with a little black. Base of antennal shaft somewhat mixed

with black ; pectinations in ♂, at their longest point, scarcely three times diameter of shaft. Thorax and abdomen as in the allies (*chlorargyra* group).

*Forewing* bright green, rather more yellowish than in the allies ; the white costal edge rather broad, strongly tinged (excepting the pure white basal sub-costal streak) with red and—especially at costal extremity—with some metallic blackish irroration ; midcostal streak rather broad and reaching to the posterior end of DC<sup>2</sup> ; distal border **of equal width throughout**, its white element continuing round the apex between SC<sup>2</sup> and SC<sup>4</sup> to about 3 mm. from termen, where it curves forward in a eedilla-shaped mark and is lost in the reddish suffusion ; oblique mark from tornus fairly broad but rather short, pure white, only at extreme tornus tinged with yellow.—*Hindwing* as in the allies.

Underside with the suffusions predominantly greenish, on the hindwing almost entirely so.

Upper Aroa River, British New Guinea, March 1903, type ♂, and February 1903, ♀ ; Kumusi River, N.E. British New Guinea, low elevation, August—September 1907. All in coll. Tring Museum, collected by A. S. Meek. Also from Penang and Perak in the same collection and from Singapore and Borneo in coll. Brit. Mus.

The ♂ antennal pectinations are much shorter than in any other of the group, unless it be the very distinct *iodioides* T. P. Luc. (= *eucraspeda* Turn., syn. nov.),\* of which only the ♀ is known.

### 31. *Pyrrhorachis pyrrhoga* (Walk.).

I am now inclined to think that Warren was correct in separating his *cornuta* (Nov. Zool. iii. 292) as a distinct species. If not, it is a constant race with very wide distribution (New Guinea and its satellite islands and again on Borneo—not yet known to me from the intervening area). In any case the forms still left under *pyrrhoga* vary geographically. Walker described from South India and his form has the distal border of the forewing rather narrow, not swelling appreciably at the tornus. The Australian form, *marginata* T. P. Luc., seems only separable by its larger size.

***P. p. augustata*** (Warr. MS.) **subsp. nov.** A single ♀ in coll. Tring Museum, from Lifu, Loyalty Islands, has the distal borders still narrower, thread-like.

Another unique specimen, *deliciosa* Warr., from the Natuna Islands, may be a subspecies with the border broadened and not traversed by blackish metallic scaling, but as the hindwing is rather less elongate, I have left it provisionally as a separate species.

***P. p. turgescens*** **subsp. nov.**, from the Khasis, is easily and constantly distinguishable from the name-type by having the marginal spot between tornus and M<sup>2</sup> of the forewing considerably enlarged, more than twice as broad as the rest of the series : the apical and tornal borders of the hindwing also show a tendency to enlargement. Type in coll. Tring Museum.

It is desirable to add that the specimen from which the genitalia were diagnosed (*Gen. Ins.* fasc. 129, p. 239) was a Khasi example (subsp. *turgescens*) in my collection.

\* Lucas's type is in coll. Tring Museum. It was unknown to me when I prepared Pt. 14 of the *Lepidopterorum Catalogus*, and I merely cited the name under *Agathia*, in which genus its author quite erroneously published it.



## SUBFAM. STERRRHINAE.

32. *Rhodostrophia plesiochora* spec. nov.

♂, 27 mm. ; ♀, 30 mm. Similar to *meonaria* Guen. (Prout in Seitz, *Macrolep.* iv. t. 7 a), with which it has been mixed. Antennal pectinations shorter, scarcely over twice diameter of shaft. Wings shorter, particularly in the ♂.

*Forewing* rather more ochreous (in the most deeply coloured examples of *meonaria* tending rather to olivaceous), rather more glossy, a faint grey antemedian line indicated except at costa ; postmedian line relatively farther from termen, rather less oblique, generally less red, the narrow band beyond it shadowy ; subterminal grey line well expressed ; a narrow pink shade at termen (rarely indicated in *meonaria* except on the terminal line itself).—*Hindwing* generally rather more ochreous than in *meonaria* ; cell-dot present ; postmedian pink shade broader, but above never reaching nearly to costa, beneath rounded anteriorly (not, as in *meonaria*, angulated) ; subterminal line better developed.

West China : Pu-tsu-fong, 9,820 ft., June—July 1890, type ♂ and a ♀ ; Chow-pin-sa, 2 ♂♂, 1 ♀ ; all these in coll. Brit. Mus. Omei-shan, 1 ♂ in coll. Tring Museum. Teng-yueh-Ting, 1 ♀ in coll. Joicey. Vrianatong, Tibet, 1 ♀ in coll. L. B. Prout.

Erroneously referred to under *meonaria* in Seitz, *Macrolep.* iv. 40 ; the Kashmir examples, including the figure, are true *meonaria*.

33. *Rhodostrophia bisinuata* Warr.

*Rhodostrophia bisinuata* Warr., *Nov. Zool.* ii. 98 (1895) ; Prout in Seitz, *Macrolep.* iv. 43 (1913).

*Rhodostrophia sinensis* Prout in Seitz, *Macrolep.* iv. 43 (1913) (*R. vinacearia* subsp., ? sp.) (syn. nov.).

Warren founded this species on a single ♀ said to be from "Japan," but no doubt really from West China ; several other specimens in the Tring Museum belonging to the latter fauna (for instance, a *Somatina mendicaria* Leech and an *Anisephyra brunnearia* Leech, both presumably topotypical with some of Leech's originals) bear the same erroneous labels. When I was at work on the genus *Rhodostrophia* for Seitz, Warren's type was not accessible to me and I merely quoted the original description ; but on p. 44, in erecting a new species, *Tanaotrichia orientis*, I suggested the possibility that the last-named might prove to be a form of Warren's lost species. Subsequently (*Nov. Zool.* xxii. 324) I erroneously accepted this suggestion and wrote "*bisinuata* Warr. = *orientis* Prout," which must be corrected to "*orientis* Prout." The females of the two species are confusingly similar, but a careful study of Warren's type, together with the rest of the available material, has shown conclusively that *bisinuata* Warr. is the true *Rhodostrophia* and supplants my *sinensis*. I think it will prove a valid species rather than a race of *vinacearia* Moore. I now know it from Chang Yang, Szechuan, Teng-yueh-Ting (Yunnan, near the Burmese frontier), and Vrianatong (Tibet).

34. *Discoglypha aureifloris parvifloris* subsp. nov.

♂ ♀, 30–32 mm. Slightly paler and more rufous-tinged than *a. aureifloris* Warr. (*Nov. Zool.* iii. 111).

*Hindwing* with the mark behind the cell much smaller, only extending



for about the middle half of  $DC^{2-3}$ , narrow, the distal projection along  $R^2$  small or almost wanting.

Sikkim, type ♂, Darjiling, paratype ♀ (H. J. Elwes), in coll. Tring Museum.

### 35. *Discoglypha locupletata* spec. nov.

♂, 26–28 mm. Closely similar to *aureifloris* Warr., but much more mixed with rufous, so as to approach the tone of *D. inflammata* Warr. and *variostigma* Warr.

*Forewing* with the lines in general somewhat thicker, the median and postmedian placed farther from the termen; an irregular submarginal series of yellow spots, the one between  $R^2$  and  $M^1$  largest and roundest, the two between  $SC^4$  and  $R^1$  sometimes confluent, those between  $R^1$  and  $R^2$  minute or obsolescent; the spots behind  $M^1$  are placed quite near the termen and are accompanied proximally by some slight dark shading.—*Hindwing* with corresponding distinctions in the distal area; cell-mark unicolorous pale golden, not marked with rufous orange as in *aureifloris*.

Khasis, April 1895, type and another, August 1896, February 1897, in coll. Tring Museum. A single ♀ from the same locality, November 1894, is larger (32 mm.), with the cell-mark of hindwing reduced.

This has hitherto been passed over as an aberration of *aureifloris*, but as all the differences are constant I suspect it is a valid species, though I have not yet found any structural distinction.

### 36. *Nobilia turbata* Walk.

*Nobilia turbata* Walk., *List Lep. Ins.* xxiv. 1098 (1862) (Sarawak).

*Plutodes strigularia* Snell. in Veth, *Midden Sumatra* i. (8.) p. 57 (1880), syn. nov. (Sumatra).

*Plutodes (Omiza) strigularia* Pagenst., *Jahrb. Nass. Ver. Nat.* xli. 178 (1888).

This widely distributed species shows interesting indications of incipient geographical variations, but the races do not seem to be yet constant enough to warrant naming. On Borneo (the type-locality) and also—so far as less adequate material shows—the Malay Peninsula, Nias, Sumatra, Java, and Celebes, the rufous parts, especially of the forewing, have a rather strong dark admixture. In North India (Sikkim, Assam) the rufous is always bright and clear, such as can only occasionally be matched in the localities named above. In New Guinea and its islands (Ron, Dampier, Vulcan, Goodenough, Fergusson) the darkening often proceeds even further than in the Malayan subregion, but again with some mingling of redder specimens; here, too, the underside is, on the whole, rather more mixed with reddish. As with several other species, the geographical range, so far as at present known, is discontinuous, for *cupreata* Pagenst., *Jahrb. Nass. Ver. Nat.* xli. 178 (= *nebulosa* Warr., Nov. Zool. iv. 58, syn. nov.), from Amboina, must, I think, be accorded specific right. I have seen no other *Nobilia* from the Moluccas.

### 37. *Antitrygodes parvimacla privativa* subsp. nov.

♂ ♀. *Forewing* entirely without green spots in the basal area; the green spots on either side of the discocellulars also reduced in size and not followed by any further green spots posteriorly.

Rook Island, July—August 1913 (A. S. Meek). Type in coll. Tring Museum.

*A. parvimacula* Warr. (Nov. Zool. iii. 293), described from Fergusson and the Trobriand Islands, shows decided tendencies to geographical variations, but—as with *Nobilis turbata*—the majority are not sufficiently sharp to merit names. The island forms (Obi Major, Key Islands, Trobriands, Rook, Louisiades) are in general rather smaller than those from the mainland of New Guinea, the easterly forms also in general more strongly suffused with purple. On the mainland the spots are generally larger than in the Trobriand type, on St. Aignan, Rossel, and Sudest Island smaller, with some aberrations approaching *p. privativa*, especially in the median area, but always with a strongly developed subbasal green spot persisting between M and SM<sup>2</sup>. The Australian form (*divisaria* Turn., Proc. Linn. Soc. New South Wales, xxxii. 676, nec Walk.) does not seem to differ from that of New Guinea.

### 38. *Antitrygodes subaequalis* spec. nov.

♂, 36 mm. Face black, in places mixed with reddish. Palpus pale, mixed (except beneath) with blackish. Crown and base of antenna whitish; occiput narrowly black. Antennal ciliation little longer than diameter of shaft. Collar reddish brown. Thorax and abdomen whitish, tegula with a few reddish scales.

*Forewing* with SC<sup>1</sup> and stalk of SC<sup>2-5</sup> connate from apex of areole; whitish, with fine and very sparse dark irroration, here and there also a few olive-green or reddish scales; a rather small olive-green subbasal spot between M and SM<sup>2</sup>; a tripartite green median band from subcostal region to just across SM<sup>2</sup>, anteriorly nearly 4 mm. wide, posteriorly little less, the element in the cell rounder than in *divisaria*, that beyond it less produced distally than in that species, the two rather broadly separated by the pale discal mark, the posterior element slightly produced distally along SM<sup>2</sup>, anteriorly confluent with the others distally (about M<sup>1</sup>), separated proximally by a projection of the ground-colour at the fork of M and M<sup>2</sup>; a slender, strongly curved, faintly waved, light brown line from just beyond two-thirds costa to five-sixths hindmargin; four olive subapical spots between SC<sup>4</sup> and R<sup>3</sup>, the last small, confluent with the preceding one into an angulated mark on R<sup>3</sup> pointing to and rather closely approaching the termen; rather faint brownish subterminal lines traceable except near costa, becoming bright rust brown at tornus, to which the proximal runs, while the distal terminates on the distal margin itself; terminal line brown, slightly thickened between the veins; fringe white, tinged with pink at tornus, traversed in the middle by some very feeble brown dusting and with traces of spots opposite the veins.—*Hindwing* not very deeply dentate; base whitish, with slight speckles; median green spots similar to those of forewing, the one beyond the cell pointed at its hinder end, the posterior one boot-shaped; some short orange-buff vein-dashes beyond these spots; a grey postmedian line about as in *agrata* Feld.; two submarginal brown lines, the red-brown mark on the proximal (from apex to R<sup>2</sup>) rather thicker anteriorly than in *divisaria*, the triangular ending, on the other hand, scarcely as large; terminal line and fringe as on forewing.

Underside similar to that of *parvimacula* Warr., the greenish median bands more discernible and broader, containing rather distinct whitish cell-marks the outer band of the hindwing receding much more from the distal margin,

especially between apex and  $R^3$ ; a narrower and weaker band distally to this, leaving it at apex, angulated outward at  $R^3$  (close to termen) and rejoining it about  $M^1$ .

Isabel Island, June 4—July 9, 1901 (A. S. Meek). Type in coll. Tring Museum.

39. *Problepsis conjunctiva subjunctiva* subsp. nov.

♂, 30–33 mm. Considerably smaller than *c. conjunctiva* Warr. (*Proc. Zool. Soc. Lond.* 1893, p. 358), from Sikkim, Bhotan, and Upper Burma, both wings with the median grey band and outer line much narrower, more brownish. Underside less darkly marked.

Cheng-Mai, Hainan, August 1902. Type in coll. Tring Museum.

40. *Problepsis plenorbis* spec. nov.

♀, 51 mm. (Head lost.) Body white.

*Forewing* white, with costal edge very narrowly smoky near base, becoming broadly smoky opposite the discal ocellus, white distally; discal ocellus large, almost perfectly round, its diameter nearly 7 mm., consisting of an olive circumscription, which has a width of not quite 1 mm. on its distal side, otherwise about 1.5 mm., and is marked on the proximal half of its proximal side with black scales and a dividing-line of metallic silvery, a white, brown-edged lunule just outside the discocellulars, an elongate black mark between  $R^3$  and  $M^1$  just within the olive ring, a large pink-tinged centre spotted with violaceous metallic, the largest spots being one in front of  $R^1$  and one behind  $M^1$ , and a fine brown distal line separating the pinkish area from the olive circumscription; an indistinct light-brown median line from the ocellus to hindmargin; a slightly sinuous postmedian from middle of wing to hindmargin, about 2–3 mm. from termen; submarginal markings grey, obsolescent anteriorly, nowhere large or very strong, the proximal series consisting of interneural spots, the distal of thin dashes across the veins; terminal line fine and rather pale.—*Hindwing* white, with a slight roundish smoky-brown central patch beyond the cell, on the proximal side of which arises the characteristic silvery marking; this is open at its anterior end (at base of  $R^1$ ), otherwise complete, though rather feeble along hindmarginal end; its anterior half is little over 1 mm. wide, with proximal side very slightly curved (following the course of  $DC^{2-3}$ ), its distal rather more curved; at  $M$  and  $R^3$  it suddenly widens to 3 mm., its expansion being almost all on the distal side (along  $R^3$ ); postmedian line fairly thick, complete, nearly 4 mm. from termen, curving towards tornus at posterior end; subterminal markings also rather better developed than on forewing, otherwise similar.

Forewing beneath with costal margin more broadly and strongly darkened, brown, ocellus smoky brown, ringed with smoky grey, no markings in it except the white lunule, which is broad and clear; faint traces of the postmedian line. Hindwing beneath with the central patch vaguely indicated.

Benkoelen, West Sumatra (Ericsson). Type in coll. Tring Museum.

Probably belongs, like the species among which I have placed it, to the section *Problepsiodes* Warr. (*Nov. Zool.* vi. 336), as its affinities would seem to be with *conjunctiva* Warr., *superans* Butl., etc. It is the only specimen of the genus known to me from Sumatra. I have adopted a MS. name of Warren's.

41. *Problepsis crassinotata* spec. nov.

♂, 41-43 mm. Head black; underside of palpus light-brown to whitish. Antenna black proximally, brown distally; furnished with short triangular teeth, bearing fascicles of long cilia. Thorax and base of abdomen white above, the rest of the abdomen above infuscated or blackened, excepting narrow white posterior edgings to the segments. Hindtarsus almost one-half as long as tibia.

*Forewing* creamy white, with costal edge narrowly infuscated as far as the postmedian line; ocellus rounded, 5 or 6 mm. in diameter, its circumference olive-brownish, the circle of silvery scales fairly complete, or slightly interrupted in posterior part, where also an arc is cut off by silvery scaling along M and R<sup>2</sup>; centre of ocellus pinkish grey, with a white discal line, proximally to it a double black mark in cell (cut by the silvery ring), posteriorly a large black mark between M<sup>2</sup> and M<sup>1</sup> and a smaller one between M<sup>1</sup> and R<sup>2</sup>, distally a black lunule from R<sup>2</sup> to before R<sup>2</sup>; median shade rather thick, light olivaceous brown, spotted with silvery, reaching from ocellus to hindmargin; some silvery scales proximally between SM<sup>2</sup> and hindmargin: postmedian line formed about as in *vulgaris* Butl. (*delphiaria* Hmps. n., nec Guen.), thick, grey, becoming more ochreous posteriorly; proximal subterminal spots large, especially the (usually confluent) pairs between the radials and at tornus, the subcostal pair more wedge-shaped, the pair between R<sup>2</sup> and M<sup>2</sup> flatter; distal subterminal series small and generally very regular, separated both by the veins and the inter-neural folds; terminal dark line more or less broken into flattened lunules; fringe white, traversed by a thick but not very strong grey line and slightly tipped with grey.—*Hindwing* with the cell-mark rather darker, large between R<sup>2</sup> and fold, narrow anteriorly, containing a very slender white line just behind DC<sup>2-3</sup>, no differentiable black markings, the silvery ones rather irregular; distal and posterior markings nearly as on forewings, the silvery scales of abscinal region more distally placed.

Forewing beneath white, slightly smoky in cell, costal margin more broadly and strongly darkened than above; both wings with ocellus dark fuscous with white cell-mark, the other markings indicated, but not strong.

Khasis. Type and another in coll. Brit. Mus. Also a ♂ without locality in coll. Joicey, and a worn ♂ from Vrianatong, Tibet, in coll. L. B. Prout.

A worn ♀ from Kiukiang, May 1887 (A. E. Pratt), in coll. Brit. Mus. (ex coll. Leech), shows that the species is widely distributed; ♀ antennal ciliation well developed, not much shorter than diameter of shaft.

42. *Problepsis longipennis* spec. nov.

♂, 41 mm. Head black, palpus narrowly white beneath. Antenna blackish, with triangular teeth bearing long fascicles of cilia. Thorax white. Abdomen above mostly blackish, narrowly white at the ends of the segments. Fore and middle legs darkened on inner side; hindtibia white, the hair-pencil partly brown, the tarsus about half the length of tibia, with first joint not noticeably thickened.

*Forewing* not broad, termen rather strongly oblique; glossy cream-white; costal edge narrowly smoky from near base to near apex; some silvery scales along proximal half of hindmargin; discal ocellus contained in an elongate brown cloud, which is within 6 mm. of base in cell, closely approximated to



the costa anteriorly, about 4 mm. from apex distally, crosses  $M^2$  posteriorly, but there becomes less sharply defined and is confluent with a narrow light-brown, silver-dusted patch on middle of hindmargin; ocellus flesh-tinted in centre, containing the white cell-streak, interruptedly bounded by silvery scaling, crossed by a silver streak along base of  $R^3$  and containing between this streak and its hinder edge a double black mark (very small between  $R^3$  and  $M^1$ , larger between  $M^1$  and  $M^2$ ); a thick black mark in cell just proximally to the ocellus and a less thick one between the radials distally to it; postmedian line slender, slightly sinuous, light-brown, from hindmargin to  $R^2$ , where it becomes absorbed in the elongate patch; submarginal grey spots elongate, thick, the anterior two less so; terminal line almost interrupted at the veins, slightly lunulate and thickened between; fringe white, traversed by a feeble central grey shade except at apex, tornus and opposite the veins.—*Hindwing* with the ocellated marking pear-shaped, light olive-brownish, its narrow anterior part containing the long, very slender concolorous cell-streak (which shows up on account of an equally slender white circumscription), its broad posterior part (about the base of  $R^3$ ,  $M^1$ , and  $M^2$ ) roundish, containing a slightly misshapen ring of dark, silver-mixed scaling, from the narrow anterior opening of which projects a line of silvery scaling along the proximal edge of the cell-mark—noticeable also in the preceding species; postmedian line complete, greyish, rather thicker than on forewing, becoming brown at abdominal margin; subterminal grey spots large, rather rounder than on forewing; pairs of small dots against the veins between these and termen (traceable also on posterior part of forewing).

Underside whitish, with costal margin of forewing smoky to near apex; median patches present, more smoky, containing white cell-marks; distal markings faintly discernible.

Khasis, October 1896. Type in coll. Tring Museum.

The descriptions of this and the preceding were drawn up quite independently, but it now occurs to me as conceivable that it may be a remarkable aberration. The structure seems to agree, and the hindwing is quite similar except that the cell-patch is slightly narrowed. The only known *Problepsis* with similarly shaped markings on the forewing is the very distinct Palaearctic species *phoebea* Ersch.

#### 43. *Problepsis delphiaria* (Guen.).

*Argyris delphiaria* Guen., *Spec. Gén. Lép.* x. 14 (1858).

*Problepsiodes argentisquama* Warr., *Nov. Zool.* vi. 337 (1899) (syn. nov.).

I think the above synonymy will be found correct. To no other known species does Guenée's description apply, though it is unfortunate that he does not mention the antennal structure in detail, and that the locality which he gives—"Central India"—is by no means helpful. It seems a comparatively rare species, and the only authentically ascertained range is Burma to Singapore, though the Tring Museum possesses one old specimen merely labelled "India." Warren (Nov. Zool. xvi. 126) clearly recognised this species as the true *delphiaria*, though he does not seem to have discovered in it his own *argentisquama* of ten years earlier. *P. vulgaris* Butl. (*Ill. Het.* vii. 23. t. 125. f. 2), of which *attenuata* Warr. (Nov. Zool. xvi. 126) is a slight and unimportant aberration, and *auriculifera* Warr. (Nov. Zool. iv. 59) apparently merely a small form—perhaps



undersized through breeding—has been erroneously described and figured by Hampson (*Faun. Ind. Moths* iii. 462. f. 208) as *delphiaria*.

#### 44. *Problepsis paredra* spec. nov.

♂, 35 mm. Head black, the palpus pale beneath. Antenna darkened; pectinations rather stout, very little longer than the widest diameter of shaft, with moderate fascicles of cilia. Collar and thorax white; abdomen partly infuscated above, remaining white at the ends of the segments. Fore and middle legs partly darkened.

*Forewing* white, with costal edge narrowly smoky; markings similar to those of *vulgaris* Butl., but with the ocellated patch considerably broader (at M-R<sup>3</sup> nearly 3.5 mm.), the contained black marks behind R<sup>3</sup> longer.—*Hindwing* with the ocellated patch more swollen posteriorly than in *vulgaris*, and with the contained silvery markings mixed with blackish; a slight brownish anterior extension of this patch; the spot at middle of abdominal margin fairly strong.

Underside with the ocellated patches more strongly marked in dark smoky than in *vulgaris*.

Szechuan, 1910 (*B. M. Barry*). Type in coll. L. B. Prout.

Apart from the shape of the markings, this species is at once distinguishable from *vulgaris* by the darker, more shortly pectinate antenna. I should have liked to unite it with *euircota* Prout (Seitz, *Macrolep.* iv. 50. t. 7 b), but the pectinations are not quite short enough, the ocellated patch—though nearly as broad—is not nearly round enough, being somewhat flattened and even a little concave on its proximal side and with a slight concavity between the radials on its distal side, and is black-edged proximally, as in *vulgaris*.

#### 45. *Problepsis appollinaria candidior* subsp. nov.

♂ ♀. Purer white than *a. appollinaria* Guen. (*Spec. Gén. Lép.* x. 13), ocellus of forewing more obliquely placed (more produced distally about R<sup>1</sup> and R<sup>2</sup>), containing near its distal margin **two oblique black marks**, the posterior one from R<sup>2</sup> nearly to R<sup>3</sup>, thicker than the single black mark of *a. appollinaria*, the anterior one in front of R<sup>2</sup>, thickening distally so as to become confluent with the posterior.

Madura district, South India, March—June 1906 (W. H. Campbell), type ♂ and another in coll. Tring Museum; Palni Hills (W. H. Campbell), a ♀ in coll. L. B. Prout. Also a worn ♀ from Ladak (Stoliczka) from the Felder collection.

As the ♂ hindtarsus scarcely appears quite so short as in *appollinaria* (about one-fourth tibia, against scarcely over one-fifth), it is possible that this may prove a distinct species.

#### 46. *Scopula aetheomorpha* spec. nov.

♂, 17 mm. Face black. Palpus black, pale beneath. Antennal ciliation long. Crown and antenna, body and legs coloured as wings, the foreleg (except tarsus) darkened on inner side; hindtibia moderately thick, fringed on upper-side; tarsus over two-thirds length of tibia.

*Forewing* rather broad, costa arched distally, termen with a rather deep

excavation between  $SC^5$  and  $R^3$ , pointed at  $R^3$ , then rather strongly oblique;  $SC^1$  arising from apex of areole; whitish fawn-colour, rather more drab proximally; antemedian line brownish, sinuous, oblique inward posteriorly, weakly indicated except as a spot at about two-fifths costa; a minute black cell-dot; postmedian line fine, sinuous, black at costa, otherwise feeble, closely followed distally by a narrow, curved, dark subterminal band, from costa about 2 mm. before apex to hindmargin at tornus; a fawn-coloured shade between this and termen.—*Hindwing* with termen excavated between the radials and more slightly near tornus; similar to forewing, the cell-dot less minute.

Underside (except ochreous costal margin of forewing) smoky as far as the subterminal band, cream-buff distally, terminal line ochreous.

Kumusi River, N.E. British New Guinea, low elevation, August—September 1907 (A. S. Meek). Type in coll. Tring Museum.

#### 47. *Ptochophyle geranium* spec. nov.

♀, 20 mm. Face rose-red, with lower extremity white. Palpus with second joint reaching almost to frons, third joint moderate, slender; whitish, the first and second joints mostly rosy on outer side and above. Vertex and antenna creamy white; occiput rose-red. Thorax and abdomen above geranium pink, becoming pale and mixed with cream-buff towards anus; anal extremity and underside pale cream-buff.

*Forewing* moderately broad, apex pointed, termen almost inappreciably sinuate inward anteriorly, not noticeably bent at  $R^2$ ; all the subcostals stalked from apex of areole,  $SC^5$  arising much before  $SC^1$ ,  $M^1$  separate; peach-blossom pink, irrorated with geranium pink, middle of wing in places slightly tinged with buff; lines very indistinct, geranium pink; antemedian fine, before one-third, very slightly curved; median diffuse, near postmedian; postmedian beyond two-thirds, very gently excurved in anterior part, gently incurved posteriorly; faint indications of a rather large cell-spot; fringe pink at extreme base, pale buff distally.—*Hindwing* with termen full but not angled, not crenulate;  $SC^2$  and  $M^1$  scarcely stalked; as forewing.

Underside unicolorous pink.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek). 2 ♀♀ in coll. Tring Museum.

#### 48. *Chrysocraspeda pulverimargo* spec. nov.

♂, 22 mm. Face and palpus pale, mixed with liver-brown. Crown liver-brown mixed with dark olive-grey, narrowly whitish in front; antennal shaft liver-brown above. Thorax and abdomen above mixed liver-brown and olive-grey, beneath pale cream-buff. Legs pale cream-buff, the anterior pair marked with purplish on upper and inner sides.

*Forewing* broad, apex not acute, termen very slightly waved, curved, scarcely bent at  $R^3$ ; dull liver-brown, mixed with grey; a narrow costal edge and an ill-defined excurved band (anteriorly at least 1 mm. wide, posteriorly attenuated) from about two-thirds costa to tornus more purple; proximally to this band an equally ill-defined one of blackish grey; distally to it a yellow area strongly irrorated with purplish dots and minute strigulae; a minute blackish cell-dot; fringe yellow, with some purplish irroration.—*Hindwing*

ample, termen faintly waved, somewhat gibbous in middle, but not angulated; nearly as forewing, the purplish band rather broader, running from apex to about three-fourths abdominal margin.

Both wings beneath deep purplish grey as far as the dark-grey band of upperside, only with the hindmargin of both wings and base of costa of hindwing pale cream-buff; distal area pale cream-buff, unmarked.

Kumusi River, N.E. British New Guinea, low elevation, June 1907 (A. S. Meek). Type in coll. Tring Museum.

#### 49. *Chrysocraspeda elaeophragma* spec. nov.

♂, 19–20 mm. Head pale, mixed with rufous. Thorax above olivaceous anteriorly, plumbeous to blackish slaty in the middle, rufous posteriorly; abdomen above rufous with some pale admixture and bordered by a darker line; underside pale.

*Forewing* with termen not or scarcely oblique from apex to  $R^2$ , gently curved to M, then exceedingly oblique, behind  $M^2$  faintly subconcave, hindmargin less than two-thirds the length of costa; whitish buff, thickly speckled and strigulated with rufous, the resultant tone salmon-buff; costal margin olive, greyest proximally; lines olive-grey; antemedian from before one-third costa to middle of hindmargin, somewhat curved anteriorly; postmedian from two-thirds costa, nearly parallel with termen in anterior half, bent about  $M^2$ , a little incurved behind, reaching hindmargin near tornus; cell-speak more or less elongate; some olive shading in distal area between  $M^1$  and tornus; terminal line rather thick, broadening at apex, dark olive; fringe yellowish, mixed (except near tornus) with olive.—*Hindwing* elongate, with termen waved, very strongly convex, bent in middle; an elongate white cell-spot; first line curved, close to base; postmedian bent, but less so than termen; terminal line thick; fringe yellowish, mixed (except at apex) with olive.

Underside with the markings more indistinct.

Snow Mountains, Dutch New Guinea: Upper Setekwa River, 2,000 ft., August–September 1910, 6 ♂♂, including the type; near Oetakwa River, up to 3,500 ft., October–December 1910, 6 ♂♂. All in coll. Tring Museum.

#### SUBFAM. GEOMETRINAE.

#### 50. *Ectropis farracearia inculta* subsp. nov.

♂ ♀. In general slightly narrower winged than *f. farracearia* Leech (*Ann. Mag. Nat. Hist.* (6.) xix. 340), though rather variable in this respect, as well as in depth of colour (density of the dark irroration); the only ♀ rather broad-winged, recalling a *Gnophos*. Always more uniform than the name-type, with less strong dark suffusions, distal area less darkened, beneath without definite dark distal band; forewing above without the characteristic white anterior patch between the median and postmedian lines.

Vrianatong, Tibet, 7 ♂♂, 1 ♀, in coll. L. B. Prout.

Possibly a separate species. As variations in the venation are always worth putting on record in the *Boarmia* group, it should be stated that while in all the examples  $SC^1$  and  $SC^2$  are coincident, in a few these are slightly connected either with C or with  $SC^{3-4}$ , in the rest free.

51. *Cleora semiochrea* spec. nov.

♂, 35 mm. Palpus not quite half as long again as diameter of eye; third joint short, but distinct. Antenna pectinate, with longish branches, a short apical part simple. Hindtibia dilated, with hair-pencil. Head and body light brown, collar and underside rather more yellowish.

*Forewing* with termen smooth;  $SC^1$  and  $SC^2$  always from cell, the latter connected by an oblique bar with  $SC^{2-4}$ ; fovea strong; cinnamon (in median area slightly more fawn-colour), with very little irroration; costal edge dotted or strigulated in part with blackish; lines blackish, arising from enlarged costal spots just before one-third and just beyond two-thirds, weak in part between the veins (especially the antemedian between M and  $SM^2$ ); antemedian slightly angulated subcostally; postmedian, after crossing  $SC^5$ , bent outward to  $R^1$ , here angulated, then oblique inward and forming in addition a very gentle inward curve; cell-spot black, elongate and rather thick, almost touched distally by a thick median shade which starts from costa and is right-angled at  $R^2$  but becomes almost entirely obsolete behind M; termen dark-spotted between the veins; fringe dark-spotted opposite the veins.—*Hindwing* with termen scarcely waved; ochre-yellow, in abdominal region and along posterior part of distal margin tinged with the fawn-colour of the forewing; a small and weak discal dot; postmedian line distinct as a spot at abdominal margin, becoming weak or very weak anteriorly.

Both wings beneath somewhat yellowish—less bright than hindwing above. Forewing strongly marked from costa to  $M^2$ , namely with costal dots, antemedian line, cell-spot, median shade, postmedian line of large, partly confluent dots (double from  $R^2$  to  $M^2$ ) and some coarse median strigulation; apical area (except a spot at apex itself) and distal shading about the medians more rufous. Hindwing with some costal strigulae, a small cell-dot and strong, punctiform postmedian line.

Philippines: Luzon, Boguio district, 4,000 ft., April 1909, type in coll. L. B. Prout. Topotype ♂ in coll. Brit. Mus., together with a ♀ from Irisan, Benquet Province, Luzon.

52. *Boarmia roboraria demonstrata* subsp. nov.

♂, 55–58 mm. Nearest *r. arguta* Butl. (Prout in Seitz, *Macrolep.* iv. t. 21 d) but less brownish, the ground-colour almost as in *r. roboraria*; markings at least as sharp as in strongly marked *arguta*.

*Forewing* with cell-spot large; median shade strong, rather uniformly developed, the zigzag median line in consequence less obvious; longitudinal dark shade in front of  $R^2$  strongly developed, especially against the subterminal line.—*Hindwing* with cell-spot small; median shade and the dark shade which accompanies the subterminal strong.—Forewing beneath with the subapical dark patch sharp, reaching  $R^2$ .

Vriantong, Tibet, 2 ♂♂ in coll. L. B. Prout.

In both examples  $SC^{1+2}$  anastomoses shortly with C, a phenomenon which I have only observed in one example of *r. arguta*, out of several examined. In the type-specimen the wings are a trifle broader than in *r. arguta*, but this is not noticeable in the paratype. It is just possible that the two forms in ques-



tion may prove to differ specifically from *roboraria* Schiff., as the subterminal line looks somewhat more dentate, at least on the hindwing.

53. *Sabaria euchroës* spec. nov.

♀, 28 mm. Head and palpus purple-red, third joint of palpus somewhat darkened. Antennal shaft reddish at base, gradually whitening; pectinations longer than in *rondelaria* F. (= *squalidaria* Hb.). Thorax and abdomen above dark fuscous, the thorax (especially in front) mixed with purplish.

*Forewing* rather broad, with the projection at mid-termen strong; purplish, shaded with light violet-grey, especially in costal region; proximal area a little darker than distal, somewhat shaded with olive-fuscous posteriorly; costal edge to two-fifths narrowly reddish, thence narrowly dark olive-grey, interrupted by pale spots in middle of central area and mostly pale towards apex; central area light olivaceous, with brown edgings which thicken into irregular spots anteriorly—the proximal in cell and forwards, the distal only near costa; proximally this band is bounded by a light violet-grey line, arising at two-fifths costa, very oblique outward, sharply bent in cell, then rather oblique inward to hindmargin before middle; distally by an anteriorly whiter line, arising at costa 2 mm. from apex, angulated just behind SC<sup>5</sup>, then straightish (very feebly incurved) to hindmargin within 3 mm. of tornus; fringe darkened with olivaceous to reddish, at extreme base paler.—*Hindwing* rather broad, slightly sinuate inward before the tornus, which consequently appears somewhat more produced than in *rondelaria*; anterior half light red, with the postmedian line indicated in darker red, slightly pale-edged distally; posterior half continuing the coloration and markings of forewing.

Underside light red, of somewhat varying shades; costal margin of forewing ochreous; the costal edge spotted and lined with olive-fuscous; both wings with darker red postmedian line: fringes, especially of forewing, darkened with olivaceous.

Nilgiri Hills: Ouchterlony Valley, 3,500 ft. (H. L. Andrewes). Type in coll. Brit. Mus.

54. *Hypochrosis martini* spec. nov.

♂, 48 mm. Head and upperside of thorax seal-brown. Thorax beneath paler. Abdomen elongate, seal-brown, a narrowing orange ventral patch from base to beyond middle; projecting tufts of white hair (? *coremata*) at anal end.

*Forewing* narrow, with distal margin long and very oblique, anal angle rounded; a transverse band of buff (at each end rather more ochreous) from two-fifths costa to tornus, 1.5 mm. wide at costa, rather broader from cell-fold hindward, its edges somewhat erenulate; a very short, very slender, similarly coloured mark from about three-fourths costa.—*Hindwing* with costal margin long, somewhat gibbous in proximal part, apex and anterior part of termen straighter, near anal angle even faintly subconcave, abdominal margin relatively short; orange, with a large irregular patch at abdominal margin and part of distal margin concolorous with forewing; the boundary of this patch follows the median vein from base almost to the origin of M<sup>2</sup>, then runs approximately parallel with abdominal margin for some distance, recedes to SM<sup>2</sup> before reaching tornus, is nearly 3 mm. from termen in its tornal part and ends before



reaching  $M^1$ ; a liver-coloured costal patch, nearer to apex than to base, 8 mm. long between costal margin and C, here suddenly reduced to about 4 mm., bounded posteriorly by  $SC^2$ , except for some slight asymmetrical projections beyond.

Underside with the darkest parts paler and more reddish than above; markings as above, but with the band and distal mark of the forewing almost as bright orange as the ground-colour of the hindwing.

Kalewara, Central Celebes, February 5, 1913 (Dr. Martin). Type in coll. Tring Museum.

55. *Percnia maculata punctimaculata* subsp. nov.

Distinguished from *m. maculata* Moore (*Proc. Zool. Soc. Lond.* 1867, p. 651) as follows: *Forewing* rather whiter, with the spots in general reduced in size, mostly becoming mere dots, not confluent, the postmedian series consisting of short, thin dashes on the veins.—*Hindwing* with corresponding dots; a well-developed cell-dot above and beneath.—Forewing beneath infuscated from base to apex, except along hindmargin.

Vrianatong, Tibet, 2 ♂♂ in coll. L. B. Prout.

In this species the subcostal venation of the forewing seems to be in a state of flux. In the type of *m. punctimaculata* the first two subcostals are stalked and  $SC^1$  is connected by a short bar with C; in the paratype the right wing agrees with this, while in the left  $SC^1$  and C anastomose at a point. In a Khasi specimen before me,  $SC^1$  is widely free from C and  $SC^2$  is quite asymmetrically placed, arising from  $SC^1$  in the right wing, from  $SC^{3-4}$  in the left.

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